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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/760,377

**Applicant(s)**

DVORAK ET AL.

**Examiner**

Beth V. Boswell

**Art Unit**

3623

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-15, 20-34, 39-53 and 96-99 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-15, 20-34, 39-53 and 96-99 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

1. The following is a non-final office action in response to the communications received 10/16/2008. A new grounds of rejection under 35 USC 101 has been raised in this office action, thus necessitating this action be made non-final. Claims 2-15, 20-34, 39-53, and 96-99 are pending.

#### ***Response to Arguments***

2. Applicant's arguments with regards to Huang et al. (U.S. 6,151,582) and Silva-Risso (*A Decision Support System for Planning Manufacturers' Sales Promotion Calendars*) have been fully considered, but they are not persuasive. In the remarks, applicant argues that (1) Silva-Risso does not teach or suggest optimal promotional analysis per individual store, but rather discusses applying analysis per retail account of a large supermarket chain and it would be contrary to common sense to apply the reference to an individual store since the model is calibrated for a large chain, (2) Silva-Risso does not apply to individual SKUs but rather to brand SKUs, (3) Silva-Risso does not discuss or apply to non-promotional events.

First, in response to applicant's arguments against Silva-Risso, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner reminds applicant that the claims were rejected over Huang et al. (U.S. 6,151,582) in view of Silva-Risso.

Specifically, in response to arguments (1)-(3), Examiner points out that Silva-Risso was relied upon to teach store identifiers and causal calendars showing both promotion and non-promotion events. Looking at page 290, figure 4, and page 294, figure 5, calendars are shown

that includes both promotion and non-promotion events. The graph clearly shows by week when promotions are at 0% (not happening) and varying percentages from there. Further, the reference clearly discusses retailers, which are stores selling goods to consumers. The reference clearly discusses in store displays and individual retail accounts, thus a single account associated with a retailer. Page 278 discusses a consumer visiting a retail store. Examiner is unclear as to where the reference states that it is solely related to supermarket chains. Applicant points to the abstract on page 274 and page 275 to show that the reference is only related to supermarket chains. However, examiner is unable to locate where in these sections the reference excludes the retailer from being a store, considering the use of the language individual retailer, in-store, the consumer coming to the store, etc.

Further, examiner points out that claim 96 states that there are a plurality of stores that are then identified individually. Thus, the claim, in the broadest reasonable interpretation does not exclude the plurality of stores being in a retail chain if, indeed, the art did limit itself to only a retail chains.

Examiner did not rely on Silva-Risso to disclose individual items, rather Huang et al. was relied upon to teach this limitation. Examiner notes that the claims contain no recitation of SKUs.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 2-15, 20-34, 39-53, and 96-99 are rejected under 35 U.S.C. 101. Based on Supreme Court precedent, and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to a particular machine or apparatus or (2) transform underlying subject matter to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876). Thus, to qualify as a § 101 statutory process, the claim should positively recite the particular machine to which it is tied or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps fail the first prong of this test since they are not tied to a particular machine and can be preformed without the use of a particular apparatus. Claim 96 recites a data structure in a computer readable medium; however, this is not enough to tie the process to a particular machine or apparatus. Claims 2-15, 20-34, 39-53, and 97-99 depend from claim 96 and fail to cure these deficiencies. Thus, it is respectfully submitted that claims 2-15, 20-34, 39-53, and 96-99 are directed to non-statutory subject matter.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-11, 20, 25-34, 39-39, 44-53, and 96-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (U.S. 6,151,582) in view of Silva-Risso (*A Decision Support System for Planning Manufacturers' Sales Promotion Calendars*).

As per claim 96, Huang et al. teaches a computer-implemented method of generating reports from forecasted unit inventory and unit sales on a bottom-up per store basis for a multitude of items at a plurality of stores, including:

Unifying treatment of events that impact demand across the items and the stores and that impact particular items at particular stores by tracking a plurality of promotion events and a plurality of non-promotion events with a unified causal event calendar (See column 13, lines 27-35, column 18, line 45-column 19, line 10, column 22, lines 6-38 (specifically 6-15, 20-22, and 34-35), column 33, lines 65-67, column 34, lines 15-20, column 37, lines 39-46, which discloses event calendars with types of events that include good identifiers, dates, and event type data. See figures 56-60 and specifically figure 58, column 109-110, which disclose promotional calendars that show periods of promotional events and the impact of these promotions are displayed),

said causal event calendar, which is a data structure stored in computer readable memory, wherein an event data tuple for an event in the causal event calendar includes at least a good identifier, a start date, a stop date and an event type identifier (See column 13, lines 27-35, column 18, line 45-column 19, line 10, column 22, lines 6-38 (specifically 6-15, 20-22, and 34-35), column 33, lines 65-67, column 34, lines 15-20, column 37, lines 39-46, which discloses event calendars with types of events that include good identifiers, dates, and event type data. See

also column 42, lines 20-35, column 53, lines 49-58, and column 54, lines 40-67, column 109, lines 30-52);

Forecasting unit inventory and unit sales at a per-item, per-store level using the causal calendar by identifying one or more events applicable to an item-store pair and using event type identifiers for applicable events to automatically select demand modifiers that correspond to demand impacts caused by the events (See column 13, lines 1-10 and 27-35, column 18, line 45-column 19, line 10 and lines 48-58, column 55, column 57, lines 13-35, and column 109, lines 20-30 and 46-61, which discloses making inventory determinations using the data stored and expected demand impacts. See figures 56-60 and specifically figure 58, column 109-110, which disclose promotional calendars that show periods of promotional events and the impact of these promotions are displayed);

Generating, from results of the forecasting using the causal event calendar consistently across analytical tool, analytical reports for ordering, distributing, and bottom-up planning prepared using at least some of the per-item, per-store level event detail from the causal calendar (See column 11, lines 5-16, column 106, lines 60-67, column 107, lines 37-55, column 108, lines 15-25 and 33-45, column 109, lines 45-60, which discloses generating reports. See also figures 56-60, column 11, lines 5-16, column 12, lines 50-65, column 20, line 55-column 21, line 30, column 108, lines 15-25, which discloses bottom up planning).

However, Huang et al. does not expressly disclose a store identifier is stored in association with a retail event type or that the causal calendar shows both promotion and non-promotion events.

Silva-Risso discloses store identifiers and causal calendars shows both promotion and non-promotion events (See page 275, column 1, page 290, figure 4, and page 294, figure 5, which shows calendars that includes both promotion and non-promotion events. The calendars are produced for specific stores. See also at least pages 274-275)

Both Huang et al and Silva Risso are concerned with the impact of promotions on sales at stores. Huang et al. specifically discloses retail outlets and using a promotional calendar that considers type of promotion, promotion dates, impact of promotion, etc. Silva Risso discloses producing a calendar that includes both promotion and non-promotion events. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the calendar of Silva Risso in the system of Huang et al. in order to achieve the predictable results of forecasting demand based on associated impact factors.

As per claim 97, Huang et al. teaches event types with corresponding event type identifiers, events involving decisions by a retailer and exogenous factors, wherein the decisions by the retailer include price promotions, advertising promotions, promotions of substitute or complementary products, removal of substitute or complementary products from a selling assortment, and new product introduction (See column 13, lines 25-35 and 50-55, column 22, lines 15-30, column 34, lines 60-67, column 36, lines 50-65, column 39, lines 60-65, column 54, lines 60-67, column 55, lines 20-33, which discloses price reductions, ads, people buying substitute products, and new products being introduced);

The exogenous factors include seasonal events and special events in a city that increase customer traffic at a store (See column 19, lines 30-40, column 21, 15-25, column 33, lines 65-



67, column 36, lines 60-65, column 54, line 60-column 55, line 20, which discloses seasonal events and special events (like military shows) that increase usage and demand for an item).

However, neither Huang et al. nor Silva Risso expressly disclose that the promotional and seasonal events include holiday events.

Both Huang et al and Silva Risso are concerned with the impact of promotions on sales at stores. Huang et al. specifically discloses retail outlets and using a promotional calendar that considers type of promotion, promotion dates, impact of promotion, wherein the promotional calendar considers price promotions, advertising promotions, promotions of substitute or complementary products, and new product introduction. Silva Risso discloses producing a calendar that includes both promotion and non-promotion events, wherein the promotions include temporary price reductions and featured ads. Examiner takes official notice that holiday events are old and well known types of promotions. It would have been obvious to one of ordinary skill in the art at the time of the invention to include holidays in the seasonal events of Huang et al. in order to more accurately account for types of activities that would cause fluctuations in demand patterns, thus allowing the user to better plan for demand.

As per claim 98, Huang et al. teaches wherein generating analytical reports consistently using the causal calendar data structure further includes reports to support:

Ordering items from suppliers (See column 7, lines 15-21, column 13, lines 44-55, column 31, lines 19-21, column 33, lines 30-45 and line 60-column 34, line 18, column 36, lines 40-67);

Allocating item inventory for seasonal or fashion items received from suppliers among stores (See column 13, lines 44-55, column 31, lines 19-21, column 33, lines 30-45 and line 60-

column 34, line 18, column 36, lines 40-67, column 42, lines 20-35, wherein the seasonal items are allocated among outlets of the supply chain. See figure 4);

Distributing items from a distribution center to stores (See figure 4, column 6, lines 45-67, column 33, lines 30-45 and line 60-column 34, line 18, column 36, lines 40-67, column 42, lines 20-35, wherein items are distributed from DCs (distribution centers)),

Bottom-up planning of sales, on-hand inventory, and receipt of items into inventory (See column 11, lines 5-16, column 12, lines 50-65, column 20, line 55-column 21, line 30, column 108, lines 15-25, which discloses bottom up planning. See column 34, lines 1-20, column 35, lines 48-60, and column 42, lines 29-55, which discloses on-hand inventory and inventory scheduling and replenishment);

Top down planning that aggregates items at levels higher than individual items (See column 11, lines 5-16, column 13, lines 10-25, column 21, lines 33-67, column 108, lines 45-51, which discloses top down planning);

Open to buy management reports that compare future inventory levels aggregated to a department level or higher with budgeted levels of inventory investment (See column 10, lines 45-50, column 21, lines 20-30, column 107, lines 45-55, column 108, lines 25-42, which discloses budget concerns);

markdown management that manages timing and level of markdown of seasonal items in order to sell out available inventory by a predetermined out date (See column 22, lines 5-35, column 33, lines 65-67, column 36, lines 50-65, column 109, lines 30-60, which discloses a promotional calendar with scheduled dates and sell out by dates that are managed. See column

54, lines 49-67, which discloses outputting analysis of promotional effects, which includes reducing a price by a given percentage).

However, while Huang et al. discloses markdown management that manages timing and level of markdown, Huang et al. does not expressly disclose that the markdown management recommends timing and level of markdowns.

Silva Risso discloses markdown management recommends timing and level of markdowns (See pages 290 and 294).

Huang et al. discloses a system that manages a promotional calendar, the promotional calendar including price reductions (markdowns). The system helps the user consider past sales to determine future demand and make inventory decisions. Silva Risso discloses an optimal plan for markdowns. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include making recommendations in the markdown management of Huang et al. in order to efficiently and accurately determine the inventory levels needed to meet the demand during the promotion by fully considering the impact of such a promotion.

Claim 99 recites substantially similar limitations to claim 98 and is therefore rejected using the same art and rationale set forth above.

As per claim 6, Huang et al. teaches wherein the attributes of the causal calendar further includes an impact estimate quantity corresponding to the impact of the event on sales (See column 22, lines 5-38, and column 109, lines 35-60, which discloses impact factors).

As per claims 7-8, Huang et al. teaches wherein the analytical tools are adapted to basic retail goods and to seasonal retail goods (See column 6, lines 1-20 and 55-65, column 7, lines 5-22, column 12, lines 25-50, column 36, lines 60-65, which discloses goods of retailers and goods

that are associated with seasons. See also claim 97 above, which addresses seasons and seasonal items).

As per claim 9, Huang et al. teaches wherein the analytical tools are adapted to basic retail goods and to seasonal retail goods (See column 6, lines 1-20 and 55-65, column 7, lines 5-22, column 12, lines 25-50, column 36, lines 60-65, which discloses goods of retailers and goods that are associated with seasons. See also claim 97 above, which addresses seasons and seasonal items). However, neither Huang et al. nor Silva Risso expressly disclose fashion retail goods.

Both Huang et al and Silva Risso are concerned with the impact of promotions on sales at stores. Huang et al. specifically discloses retail outlets and using a promotional calendar that considers type of promotion, promotion dates, impact of promotion, wherein the promotional calendar considers price promotions, advertising promotions, promotions of substitute or complementary products, and new product introduction. Silva Risso discloses producing a calendar that includes both promotion and non-promotion events, wherein the promotions include temporary price reductions and featured ads. Examiner takes official notice that fashion items are items that are affected by the change in season. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include fashion items in the items of Huang et al. affected by seasonal factors in order to more accurately account for all factors that would cause fluctuations in demand patterns, thus allowing the user to better plan for demand.

As per claim 10, Huang et al. teaches wherein the analytical tools operate on daily or more frequent period forecasts (See at least column 8, lines 1-25, which discloses daily).

As per claim 11, Huang et al. teaches wherein the analytical tools operate on weekly forecasts (See at least column 7, lines 50-52, and column 8, lines 1-25, which discloses weekly).

As per claim 20, Huang et al. teaches wherein the analytical reports include open to buy reports (See column 10, lines 45-50, column 21, lines 20-30, column 107, lines 45-55, column 108, lines 25-42, which discloses budget concerns).

Claims 25-34 recite equivalent limitations to claims 6-15, respectively, and are therefore rejected using the same art and rationale set forth above.

As per claim 39, Huang et al. teaches wherein the analytical reports include a promotions management report (See column 11, lines 5-16 and column 54, lines 49-67, which discloses outputting analysis and reports of promotional effects, which includes reducing a price by a given percentage).

Claims 44-53 recite equivalent limitations to claims 6-15, respectively, and are therefore rejected using the same art and rationale set forth above.

7. Claims 2-5, 12-15, 21-24, and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (U.S. 6,151,582) in view of Silva-Risso (*A Decision Support System for Planning Manufacturers' Sales Promotion Calendars*) and in further view of Landvater (U.S. 6,609,101).

As per claims 2-5, Huang et al. discloses a plurality of retail event types that have different impacts on demand, wherein an event data tuple for an event in the causal event calendar includes at least a good identifier, a start date, a stop date and an event type identifier (See column 13, lines 27-35, column 18, line 45-column 19, line 10, column 22, lines 6-38

(specifically 6-15, 20-22, and 34-35), column 33, lines 65-67, column 34, lines 15-20, column 37, lines 39-46, which discloses event calendars with types of events that include good identifiers, dates, and event type data. See also column 53, lines 49-58, and column 54, lines 40-67, column 109, lines 30-52). Huang et al. further discloses retail outlets (See column 42, lines 20-35). Huang et al. further discloses product groups and product families (See column 8, lines 1-5 and 30-35, column 10, lines 55-65, column 19, lines 30-55, column 20, lines 33-35, column 40, lines 45-50).

However, neither Huang et al. nor Silva Risso expressly disclose the specific details of the association between a product or products and a location or locations, as per claims 2-5.

As per claim 2, Landvater teaches wherein a pair of the good identifier and event type identifier attributes associate a single good at a single store with one of the plurality of events (See figures 10, 16-17, and 19-21, column 11, line 53-column 12, line 40, and column 17, lines 5-55, which discusses a good and an event, such as promotions, holidays, displays, etc.).

As per claim 3, Landvater wherein a pair of the good identifier and event type identifier attributes associate a single good at a group of stores with one of the plurality of events (See column 8, lines 5-25, column 11, lines 20-32, column 17, lines 35-57, column 19, lines 5-17, which discuss individual goods at multiple selling locations, and overriding occurs. Specifically, when an event works better at one location than another, inventory is balanced).

As per claim 4, Landvater teaches wherein a pair of the good identifier and event type identifier attributes associate a group of goods at a single store with one of the plurality of events (See column 5, lines 1-5, column 8, lines 5-25, column 11, lines 20-32, column 15, lines 25-45

and 55-65, column 17, lines 35-57, column 19, lines 5-17, wherein goods are grouped and projected across the retailers while also considering events, such as promotions, displays, etc.).

As per claim 5, Landvater discloses wherein a pair of the good identifier and event type identifier attributes associate a group of goods at a group of stores with one of the plurality of events (See column 5, lines 1-5, column 8, lines 5-25, column 11, lines 20-32, column 15, lines 25-45 and 55-65, column 23, lines 45-65, which discusses group products and events such as displays).

Huang et al. and Silva Risso are combinable for the reasons set forth above. Further, both Huang et al. and Landvater disclose determining product and inventory needs for periods of promotions. Huang et al. specifically discloses retail outlets and using a promotional calendar that considers type of promotion, promotion dates, impact of promotion, etc. Landvater specifically discloses multiple retail stores in the supply chain, and using product/location data. It would have been obvious to one of ordinary skill in the art at the time of the invention to include specifics of product/location identifiers (i.e. single product-single location, single product-multiple location, multiple product-single location, and multiple product-multiple location) associated with the promotional events of Huang et al. in order to more efficiently keep track of the unique and specific needs of specific locations. See column 17, lines 35-57, column 19, lines 5-17, of Landvater.

Claims 12-15 recite equivalent limitations to claims 2-5, respectively, and are therefore rejected using the same art and rationale set forth above.

Claims 21-24 recite equivalent limitations to claims 2-5, respectively, and are therefore rejected using the same art and rationale set forth above.

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Claims 40-43 recite equivalent limitations to claims 2-5, respectively, and are therefore rejected using the same art and rationale set forth above.

***Conclusion***

Any inquiry concerning this communication should be directed to Beth V. Boswell at telephone number (571)272-6737.

/Beth V. Boswell/

Supervisory Patent Examiner, Art Unit 3623